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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,105

01/26/2006

Ann Denholm

16-992P/US

9446

26294

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EXAMINER

HUG, ERIC J

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,105	Applicant(s) DENHOLM, ANN	
	Examiner Eric Hug	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006 and 28 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-9 and 11-17 is/are rejected.
- 7) ☒ Claim(s) 3-6, 8, 9, 11-14, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/7/06, 4/28/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 3-6, 8, 9, 11-14, 16, and 17 are objected to because of the following:

Claims 3-5 and 11 recite a "fire retardant compound".

Claims 6, 8, 9, 12, 13, and 14 recite a "fire retardant resinous compound".

Claims 14, 16, and 17 recite a "fire retardant resin".

Applicant is advised to check for inconsistencies in the claim language. Applicant is also requested to point out any differences among the above recitations.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 7-9, and 11-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 5, 8, 11, and 12, the feature of the "the pH of the fire retardant compound is greater than 9.0 during introduction to the resin" is not enabling, because there is no disclosure of what this compound is or comprises other than borax and diammonium phosphate. Both borax and diammonium phosphate are solids, therefore a pH is not applicable. Claims 9 and 13 are rejected as being dependent on claims 8 and 12, respectively.

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Furthermore, regarding claims 5, 8, 11, and 12, the feature of the "the pH of the fire retardant compound is greater than 9.0 during introduction to the resin" is not enabling, because the specification recites on page 5, first paragraph, that the pH of the fire retardant compound is held within the range of 8.0-9.0 during addition to the resin. Also, page 6, last paragraph, recites that the pH of the total system (including the resin) is greater than 9.0.

Regarding claim 7, this claimed step of introducing a portion of the resin to the borax and diammonium phosphate before addition of the balance of the resin is not disclosed or described anywhere in the specification.

Regarding claims 14-17, none of the steps of the claimed method are disclosed or described except for the last step of impregnating a kraft paper with the fire retardant resinous compound.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites "adding borax and diammonium phosphate with a portion of a fire retardant resin to form a partial mixture" (emphasis added). How can the resin be fire retardant before adding the borax and diammonium phosphate?

Claims 15-17 are accordingly rejected as being dependent on claim 14.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulenburg (US 2,881,088).

Schulenburg discloses a fire retardant composition suitable for the impregnation of materials such as paper. The composition includes 50-80% of a foam-forming component and 3-50% of a synthetic resin component. A carbohydrate or proteinaceous material is also included. Examples of the foam-forming component are given in column 2, lines 12-18, and include the claimed diammonium phosphate and borax (sodium borate). The composition may be formed by dispersing the foaming agent into the resin as a solution or suspension (column 2, lines 40-57). The resulting composition can be applied so as to impregnate the desired material (column 2, line 70 to column 3, line 3).

Although Schulenburg discloses both borax and diammonium phosphate, Schulenburg does not disclose a combination of borax and diammonium phosphate, per se, however it is obvious to one skilled in the art to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See MPEP 2144.

It is noted that Example 1 discloses pH adjustment to 8.2 with sodium hydroxide. This falls within the pH range of 8.0-9.0 given in the instant specification. Although this example does not disclose the claimed additives, it is presumed that this pH is illustrative for any combination of additives.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moran et al (US 3,663,267) discloses a fire retardant composition suitable for paper including an inorganic component such as diammonium phosphate or sodium borate, a synthetic resin, and a carbon forming agent.

Hay (US 3,257,267) discloses a fire retardant composition for paper comprising gel-embedded inorganic materials and/or resins.

Jones (US 2,523,626) discloses a fire retardant composition suitable for paper including an inorganic component such as diammonium phosphate or sodium borate, a urea-formaldehyde resin, and a protein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/
Primary Examiner, Art Unit 1791